

PROJECT NAME: Max #2 Placer

DATE: 7/16/2014

LEGAL LOCATION: T25N R3E Section 12

FOREST: Nez Perce-Clearwater National Forest:
Salmon River Ranger District

PROJECT TIMING: Seasonally for five years

Project Description:

This proposal is for the removal of placer samples from 10 test pits for the purpose of testing for mineral values. The project area is located in the Ozark Creek drainage. The material will be removed with a small excavator or backhoe. A bulk sample of one ton will be removed from each pit. The material will then be processed through a sluice box, and process water will be run back into the pit with processed material. Process water will then be reused. When finished, the pit will be refilled with material, any existing topsoil will be replaced, and the affected area will be reseeded. Only one pit will be open at a time.

No roads or trails will be needed to be constructed for this project. Access will be by existing roads and trails. Some brushing will be required on Forest Road 645J and Ozark Creek will need to be forded for access to the project area. This can be accomplished by the use of planks across the stream channel with no impact to the stream.

See project file for additional information.

Biological Assessment and Biological Evaluation: The following tables display those endangered, threatened, proposed, candidate, sensitive, and management indicator species that are known to (or may) occur on the Nez Perce-Clearwater National Forest. For the project named above, this checklist serves as documentation for the Biological Assessment and Biological Evaluation for these species.

WILDLIFE: The following narrative is a result of an on-site visit on 7/16/2014 and use of USFS information. Potential effects on wildlife habitat and individual animals were assessed within a ¼ mile buffer surrounding the project area.

A. Threatened, Endangered, and Proposed Species (list downloaded from USFWS on 07/29/2014)

<i>Species</i>	<i>Suitable habitat in project area?</i>	<i>Effect on habitat?</i>	<i>Species present in area during season of project?</i>	<i>Determination¹</i>	<i>Comments</i>
Canada lynx (<i>Felis lynx</i>)	Yes	No	Yes	NLAA	USFS habitat modeling identifies Canada lynx foraging and denning habitat within the ¼ mile project buffer. The project site occurs within a Lynx Analysis Unit. This project area is along a high elevation series of ridges that form a natural movement corridor near Florence, ID. A spur road off of USFS 643 provides access to the project site. An on-site inspection found the riparian and north slope areas within the ¼ mile buffer include mixed conifers 60-80 feet tall, numerous snags and fair amounts of down woody debris. The upland areas are dominated by lodgepole pine and dwarf huckleberry. The U.S. Fish and Wildlife Service

					<p>added Canada lynx to the list of threatened species on March 24, 2000 (65 FR 16052). The Northern Rockies Lynx Management Direction (NRLMD) now guides lynx management on the Nez Perce and Clearwater National Forests. The Nez Perce National Forest has no known Canada lynx population at this time. If lynx are detected on the Nez Perce National Forest, USFS might consider delaying project activities until July 1 in identified lynx denning habitat. Project activity will disturb areas that were mined in the past and will not have an adverse impact on the surrounding landscape in and outside of the ¼ mile buffer. Some dead and/or down timber may be removed for access and safety. A number of small trees may need to be removed. These will be cut down and piled to one side, then scattered about the immediate area and left in place when work is finished. Noise production from equipment used in this project and human activity associated with the operation may impact lynx moving through the area in the short-term. However, this operation will not adversely impact or affect lynx occupying this portion of the Nez Perce National Forest. It is proposed that this project falls under the 2014 Programmatic for Lynx, Grizzly Bear and Lynx Critical Habitat under "Other Special Uses " category of activities.</p>
<p>North American wolverine² (<i>Gulo gulo luscus</i>)</p>	Yes	No	Yes	<p>NLAA This project will not jeopardize the continued existence of wolverine on the Nez Perce National Forest.</p>	<p>There are large blocks of primary wolverine habitat near the ¼ buffer of the project site. Also, this project area is along a high elevation series of ridges that form a natural movement corridor near Florence, ID. The area may serve more as a movement corridor linking critical habitats, but is not functional as high quality wolverine habitat that would support a viable population. The U.S. Fish and Wildlife Service produced a proposed rule for the North American Wolverine on Monday, February 4, 2013 in the Federal Register (Vol. 78, No. 23) in which it was determined that habitat modifications resulting from land management activities such as timber harvest would not significantly affect the conservation of wolverine. This project would create noise and additional human presence during the operation over the short-term. Few if any trees and shrubs will be impacted by the project. Motorized route</p>

					643 and 643J access road is adjacent to the project site. Additional noise and human disturbance would not have significant impacts based upon present levels of motorized use. To minimize any potential impact to wolverine, timing of the proposed activity should occur after May 15, which marks the end of the wolverine reproductive denning period.
¹ NE = “No effect”; NLAA = “Not likely to adversely affect”; LAA = “Likely to adversely affect”; BE=Beneficial effects ² This species is not listed for consultation for Section 7 of the ESA for the Nez Perce-Clearwater National Forests. This species is also a Forest Sensitive Species.					

B. Sensitive Species

Species	Suitable habitat in project area?	Effect on habitat?	Species present in area during season of project?	Determination ¹				Comments
				NI	MIIH	LI	BI	
Birds								
American peregrine falcon (<i>Falco peregrinus anatum</i>) ² (Nez Perce only)	No	None	No	X				No suitable habitat exists within the ¼ mile buffer of the project site.
Bald eagle (<i>Haliaeetus leucocephalus</i>) ²	No	None	No	X				No suitable habitat exists within the ¼ mile buffer of the project site.
Black-backed woodpecker (<i>Picoides arcticus</i>)	Yes	None	Yes		X			Black-backed woodpeckers are opportunistic foragers upon outbreaks of wood-boring beetles or recently burned forests. Younger age-class and small size class stands of timber are not considered suitable habitat. The entire ¼ mile buffer, 320 acres, of the project area is suitable habitat mostly due to insect induced dead and dying lodgepole pine. Woodpeckers are highly tolerant of human activities and any noise or human generated disturbances around the project site is unlikely to displace nesting/breeding woodpeckers within the buffer area. These activities will not have long-term impacts to the black-backed woodpecker population.
Black swift (<i>Cypseloides niger</i>) (Nez Perce only)	No	None	No	X				No suitable habitat exists within the ¼ mile buffer of the project site.

<i>Species</i>	<i>Suitable habitat in project area?</i>	<i>Effect on habitat?</i>	<i>Species present in area during season of project?</i>	<i>Determination¹</i>				<i>Comments</i>
				<i>NI</i>	<i>MIH</i>	<i>LI</i>	<i>BI</i>	
Common loon (<i>Mergellus albellus</i>) (Nez Perce only)	No	None	No	X				No suitable habitat exists within the ¼ mile buffer of the project site.
Flammulated owl (<i>Otus flammeolus</i>)	No	None	No	X				No suitable habitat exists within the ¼ mile buffer of the project site.
Harlequin duck (<i>Histrionicus histrionicus</i>)	No	None	No	X				No suitable habitat exists within the ¼ mile buffer of the project site.
Mountain quail (<i>Oreortyx pictus</i>) (Nez Perce only)	No	None	No	X				No suitable habitat exists within the ¼ mile buffer of the project site.
Pygmy nuthatch (<i>Sitta pygmaea</i>)	No	None	No	X				No suitable habitat exists within the ¼ mile buffer of the project site.
White-headed woodpecker (<i>Picoides albolarvatus</i>) (Nez Perce only)	No	None	No	X				No suitable habitat exists within the ¼ mile buffer of the project site.
Mammals								
Bighorn sheep (<i>Ovis Canadensis</i>) ² (Nez Perce only)	No	None	No	X				No suitable habitat exists within the ¼ mile buffer of the project site.
Fisher (<i>Martes pennanti</i>) ³	Yes	None	Yes		X			The entire ¼ mile buffer, 320 acres, is suitable fisher habitat. Fisher prefer mid to low elevation mature, mixed specie stands with large diameter conifers and high canopy cover. Abundant woody debris is important. Proposed project activities will produce noise, increased human presence and the potential removal of a minimal number of trees. This site is adjacent to a major motorized route FS 643J. Any potential disturbance to fisher in the area or moving through the area will not cause long-term harmful affects to the population. There is sufficient fisher habitat within the ¼ mile buffer and surrounding area to facilitate fisher movement through or skirting the project area without leaving identified fisher habitat.
Fringed myotis (<i>Myotis thysanodes</i>)	Yes	None	Yes		X			Fringed myotis roost in old growth conifers and snags along riparian areas. These bats use the riparian zones for foraging areas as well. Snags are abundant within the ¼ mile project area buffer, mature Douglas fir and spruce

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				<i>NI</i>	<i>MIH</i>	<i>LI</i>	<i>BI</i>	
								also occurs within the buffer area. Increased noise and human activity may cause short-term site abandonment by existing bats. The removal of a minimal number of mature trees during the project operation may remove potential roosting sites. The removal of large snags should be avoided. However, the removal of these trees may also open up more of the riparian area for foraging. These activities may affect individual bats over the short-term but not adversely affect the population.
Gray wolf (<i>Canis lupis</i>) ²	Yes	None	Yes		X			Signs of big game were observed within the ¼ mile buffer of the project site; therefore, as a major predator of all these ungulates, wolf presence is possible in the area. Also, motorized route FS 643J is adjacent to the site and wolves use forest roads and trails routinely as movement corridors. Increased noise and human presence may cause wolves moving through the area to shift movements and find alternative routes for passage but no long-term impacts to the wolf population will occur.
Long-eared myotis (<i>Myotis evotis</i>)	Yes	None	Yes		X			Long-eared myotis roost in old growth conifers and snags often distant from riparian areas. These roost sites are often near timber/meadow edges and rocky outcroppings. These bats use the riparian zones for foraging areas. Snags are abundant and rocky outcroppings are sparse within the ¼ mile project area buffer. Increased noise and human activity may cause short-term adverse impacts to foraging bats. However, this foraging behavior is nocturnal; a time when project activities have ceased for day. The removal of a minimal number of trees may open up more of the riparian area for foraging. These activities may affect individual bats over the short-term but not adversely affect the population.

<i>Species</i>	<i>Suitable habitat in project area?</i>	<i>Effect on habitat?</i>	<i>Species present in area during season of project?</i>	<i>Determination¹</i>				<i>Comments</i>
				<i>NI</i>	<i>MIH</i>	<i>LI</i>	<i>BI</i>	
Long-legged myotis (<i>Myotis volans</i>)	Yes	None	Yes		X			Long-legged myotis use caves, snags, bridges and loose bark for daytime roosting sites. Caves and snags are often used as hibernacula. These bats forage near and along riparian areas. Snags are abundant within the ¼ mile project area buffer, mature Douglas fir and spruce also occurs throughout the buffer area. Increased noise and human activity may cause short-term site abandonment by existing bats. The removal of a minimal number of mature trees during the project operation may remove potential roosting sites. However, the removal of these trees may also open up more of the riparian area for foraging. These activities may affect individual bats over the short-term but not adversely affect the population.
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)	Yes	Yes	Yes		X			Townsend's big-eared bats are known to use caves and mine shafts for daytime roosting and hibernacula. No apparent roosting habitat occurs within the ¼ mile buffer area but foraging habitat does occur. The increased human activity and noise associated with this project may adversely impact individual bats over the short-term but will not adversely impact the population.
Amphibians & Reptiles								
Coeur d'Alene salamander (<i>Plethodon idahoensis</i>)	Yes	No	Yes		X			Coeur d'Alene salamanders occur along streams, adults often exist in talus or rock fissures near seeps, streams or spray zones of waterfalls. Individuals are not known to travel long distances. There are isolated areas within the ¼ mile buffer that could offer habitat. Many of these areas are wetland areas. Some are natural seeps and springs. USFS officials and contract wetland specialist will map existing wetlands, seeps and springs. These areas should be avoided. This project may affect individual salamanders but will not likely adversely impact the overall population.
Ring-necked snake (<i>Diadophis punctatus</i>)	No	None	No	X				There is no suitable habitat within the project ¼ mile buffer area.

<i>Species</i>	<i>Suitable habitat in project area?</i>	<i>Effect on habitat?</i>	<i>Species present in area during season of project?</i>	<i>Determination¹</i>				<i>Comments</i>
				<i>NI</i>	<i>MIIH</i>	<i>LI</i>	<i>BI</i>	
Western (boreal) toad (<i>Anaxyrus boreas</i>)	Yes	None	Yes		X			Western toads occupy a wide range of habitats including wet meadows to forest; they are commonly associated with wet areas, especially during their breeding season. There are potential habitats within the project ¼ mile buffer including streamside vegetation and wet meadows. Project activities will avoid streamside disturbance and disturbance to any natural or man-made springs, seeps or wetlands. Project activities may disrupt or affect individual toads and breeding behavior but will not have adverse impacts to overall population.
¹ NI = “No impact”; MIIH = “May adversely impact individuals or habitat, but not likely to result in a loss of viability on the planning area, nor cause a trend to federal listing or a loss of species viability range wide”; LI = “Likely to result in a loss of viability on the planning area, in a trend to federal listing, or in a loss of species viability range wide”; BI=“Beneficial impact” ² These species are also Management indicator species ³ This species is also a Management indicator species for Nez Perce								

C. Management Indicator Species

<i>Species</i>	<i>Suitable habitat in project area?</i>	<i>Effect on habitat?</i>	<i>Biological Determination</i>
Birds			
Belted kingfisher (<i>Megaceryle alcyon</i>) (Clearwater only)			
Northern goshawk (<i>Accipiter gentilis</i>)	No	None	No suitable habitat occurs for this species within the ¼ mile buffer.
Pileated woodpecker (<i>Dryocopus pileatus</i>)	No	None	No suitable habitat occurs for this species within the ¼ mile buffer.
Mammals			
American marten (<i>Martes americana</i>)	Yes	None	This site supports 60-80 foot mature fir and spruce along an unnamed stream. There are substantial levels of dead and down woody debris. Minimal number of trees may be removed during the project. Loss of habitat will be minimal as a result of this proposed project. Coarse, woody debris will be left on-site. Marten may be displaced in the short term by the human activity and resultant noise generated by this project. However, no anticipated risks of direct mortality or long-term impacts to the population are expected.

<i>Species</i>	<i>Suitable habitat in project area?</i>	<i>Effect on habitat?</i>	<i>Biological Determination</i>
Grizzly bear (<i>Ursus arctos</i>)	No	None	Grizzly bear are not known to occupy this portion of the Nez Perce-Clearwater National Forest.
Rocky Mountain elk (<i>Cervus elaphus</i>)	Yes	None	Any tree or shrub removal at the proposed site will be minimal and not contribute in any significant way to the detriment or improvement of elk habitat within the ¼ mile buffer. Increased noise and human presence at the site during the project will discourage elk use of the immediate project area for the short-term. The presence of motorized route FS643J already compromises habitat effectiveness for elk within the ¼ mile buffer of the project area. Additional human activity and noise production will not create affects that adversely affect this population.
Shiras moose (<i>Alces alces shirasi</i>)	Yes	None	Any tree or shrub removal at the proposed site will be minimal and not contribute in any significant way to the detriment or improvement of moose habitat within the ¼ mile buffer. Increased noise and human presence at the site during the project will discourage moose use of the immediate project area for the short-term. The presence of motorized route 643J already compromises habitat effectiveness for moose within the ¼ mile buffer of the project area. Additional human activity and noise production will not create affects that adversely affect this population.
White-tailed deer (<i>Odocoileus virginianus</i>) (Clearwater only)			

Suggested mitigation to be included as part of the project design:

To minimize any potential impact to wolverine, timing of the proposed activity should occur after May 15, which marks the end of the wolverine reproductive denning period. Project activities should avoid streamside disturbance and disturbance to any natural or man-made springs, seeps or wetlands.

Prepared by:

SIGNATURE: Craig Jourdonnais **DATE:** 07/16/2014

TITLE: Senior Wildlife Biologist

Reviewed by:

SIGNATURE: James Lutes **DATE:** 03/09/2015

TITLE: Wildlife Biologist – Nez Perce-Clearwater National Forest

Threatened, Endangered, and Sensitive Species (TES) note: The Biological Assessment/Evaluation process (FSM 2672.43) is intended to identify and document activities necessary to ensure that proposed management actions will not jeopardize the continued existence or cause adverse modification of habitat for TES species. TES species are those species that are listed or proposed to be listed as Threatened or Endangered by the U.S. Fish and Wildlife Service and species listed as Sensitive by the U.S. Forest Service, Region 1. This process also ensures compliance with the Nez Perce and Clearwater Forest Plans.

Wildlife biologists have reviewed this project, used available information on species distributions and habitat (using topographic maps, aerial photos, field reconnaissance, previous surveys, vegetation data, and/or habitat requirement data for each species), and then assessed the potential for effects for all federally listed, Region 1 sensitive, and Forest Plan management indicator species. If the project was determined to have no effect or no impact, this determination was based on one or more of the following criteria:

- 1) Habitat for the species is not present in the project area.
- 2) Habitat for the species is present (the species occurs or may occur in the project area), but the project would not alter habitat for the species.

Cumulative impacts: Cumulative impacts to wildlife populations and habitats are addressed through consideration of past, proposed and reasonably foreseeable actions, such as road and trail construction and use, timber harvest, natural and prescribed fire, grazing, weed introductions, mining, and recreational uses. The results of past projects contribute to the current existing condition, which can be used to discuss effects of proposed activities on wildlife species. Based on consideration of these past, present, and reasonably foreseeable actions, the project would not have any incremental effect that would cause a cumulatively significant effect.

Consistency with Laws: The objective of managing sensitive species is to ensure population viability throughout their range on National Forest lands and to ensure they do not become federally listed as threatened or endangered. All actions included in this project are consistent with this direction to the extent that proposed project activities or management actions would not adversely affect viability of sensitive wildlife populations.

NOTE: THE USFWS LIST OF SPECIES SHOWN BELOW MUST BE INCLUDED WITH EACH BA.



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This resource list is to be used for planning purposes only — it is not an official species list.

Endangered Species Act species list information for your project is available online and listed below for the following FWS Field Offices:

Idaho Fish and Wildlife Office
1387 SOUTH VINNELL WAY, SUITE 368
BOISE, ID 83709
(208) 378-5243
<http://www.fws.gov/idaho/>

Project Name:

All Counties

Project Counties:

Clearwater, ID | Idaho, ID | Lewis, ID | Nez Perce, ID

Project Type:

Mining

Endangered Species Act Species List ([USFWS Endangered Species Program](#)).

There are a total of 8 threatened, endangered, or candidate species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fishes may appear on the species list because a project could cause downstream effects on the species. Critical habitats listed under the Has Critical Habitat column may or may not lie within your project area. See the Critical habitats within your project area section below for critical habitat that lies within your project area. Please contact the designated FWS office if you have questions.

Species that should be considered in an effects analysis for your project:

Conifers and Cycads	Status		Has Critical Habitat	Contact
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Whitebark pine (<i>Pinus albicaulis</i>)	Candidate	species info		Idaho Fish And Wildlife Office
Fishes				
Bull Trout (<i>Salvelinus confluentus</i>) Population: U.S.A., conterminous, lower 48 states	Threatened	species info	Final designated critical habitat	Idaho Fish And Wildlife Office
Flowering Plants				
Macfarlane's four-o'clock (<i>Mirabilis macfarlanei</i>)	Threatened	species info		Idaho Fish And Wildlife Office
Spalding's Catchfly (<i>Silene spaldingii</i>)	Threatened	species info		Idaho Fish And Wildlife Office
Water howellia (<i>Howellia aquatilis</i>)	Threatened	species info		Idaho Fish And Wildlife Office
Mammals				
Canada Lynx (<i>Lynx canadensis</i>) Population: (Contiguous U.S. DPS)	Threatened	species info	Final designated critical habitat Proposed critical habitat	Idaho Fish And Wildlife Office
North American wolverine (<i>Gulo gulo luscus</i>) Population:	Proposed Threatened	species info		Idaho Fish And Wildlife Office
Northern Idaho Ground squirrel (<i>Spermophilus brunneus brunneus</i>) Population: Entire	Threatened	species info		Idaho Fish And Wildlife Office

Critical habitats within your project area: ([View all critical habitats within your project area on one map](#))

The following critical habitats lie fully or partially within your project area.

Fishes	Critical Habitat Type
Bull Trout (<i>Salvelinus confluentus</i>) Population: U.S.A., conterminous, lower 48 states	Final designated critical habitat



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steelhead (<i>Oncorhynchus (=salmo) mykiss</i>) Population: Snake R. Basin	Final designated critical habitat
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FWS National Wildlife Refuges ([USFWS National Wildlife Refuges Program](#)).

There are 2 refuges in your refuge list

Dworshak National Fish Hatchery (208) 476-4591 276 DWORSHAK COMPLEX DRIVE OROFINO, ID83544	refuge profile
Kooskia National Fish Hatchery (208) 926-4272 318 TOLL ROAD KOOSKIA, ID83539	refuge profile

FWS Migratory Birds ([USFWS Migratory Bird Program](#)).

The protection of birds is regulated by the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA). Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. For more information regarding these Acts see <http://www.fws.gov/migratorybirds/RegulationsandPolicies.html>.

All project proponents are responsible for complying with the appropriate regulations protecting birds when planning and developing a project. To meet these conservation obligations, proponents should identify potential or existing project-related impacts to migratory birds and their habitat and develop and implement conservation measures that avoid, minimize, or compensate for these impacts. The Service's Birds of Conservation Concern (2008) report identifies species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become listed under the Endangered Species Act as amended (16 U.S.C 1531 et seq.).

For information about Birds of Conservation Concern, go to <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Management/BCC.html>.

Migratory birds of concern that may be affected by your project:



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There are 10 birds on your Migratory birds of concern list. The Division of Migratory Bird Management is in the process of populating migratory bird data with an estimated completion date of August 1, 2014; therefore, the list below may not include all the migratory birds of concern in your project area at this time. While this information is being populated, please contact the Field Office for information about migratory birds in your project area.

Species Name	Bird of Conservation Concern (BCC)	Species Profile	Seasonal Occurrence in Project Area
American bittern (<i>Botaurus lentiginosus</i>)	Yes	species info	Breeding
Black Rosy-Finch (<i>Leucosticte atrata</i>)	Yes	species info	Year-round
Black Swift (<i>Cypseloides niger</i>)	Yes	species info	Breeding
Brewer's Sparrow (<i>Spizella breweri</i>)	Yes	species info	Breeding
Calliope Hummingbird (<i>Stellula calliope</i>)	Yes	species info	Breeding
Cassin's Finch (<i>Carpodacus cassinii</i>)	Yes	species info	Year-round
Olive-Sided flycatcher (<i>Contopus cooperi</i>)	Yes	species info	Breeding
Rufous hummingbird (<i>selasphorus rufus</i>)	Yes	species info	Breeding
Williamson's Sapsucker (<i>Sphyrapicus thyroideus</i>)	Yes	species info	Breeding
Willow Flycatcher (<i>Empidonax traillii</i>)	Yes	species info	Breeding

NWI Wetlands ([USFWS National Wetlands Inventory](#)).

The U.S. Fish and Wildlife Service is the principal Federal agency that provides information on the extent and status of wetlands in the U.S., via the National Wetlands Inventory Program (NWI). In addition to impacts to wetlands within your immediate project area, wetlands outside of your project area may need to be considered in any evaluation of project impacts, due to the hydrologic nature of wetlands (for example, project activities may affect local hydrology within, and outside of, your immediate project area). It may be helpful to refer to



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the USFWS National Wetland Inventory website. The designated FWS office can also assist you. Impacts to wetlands and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes. Project Proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate [U.S. Army Corps of Engineers District](#).

Data Limitations, Exclusions and Precautions

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery and/or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Exclusions - Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Precautions - Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

The following wetland types intersect your project area in one or more locations:

Wetland Types	NWI Classification Code	Total Acres
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Freshwater Emergent Wetland	PEM/SS1C	1.4958
Freshwater Emergent Wetland	PEMCh	2.1974
Freshwater Emergent Wetland	PEMAx	0.8534
Freshwater Emergent Wetland	PEMFh	1.2929
Freshwater Emergent Wetland	PEMF	9.819
Freshwater Emergent Wetland	PEMA	21.1824
Freshwater Emergent Wetland	PEMC	477.1857
Freshwater Emergent Wetland	PEMB	48.1965
Freshwater Emergent Wetland	PEM1C	540.0394
Freshwater Forested/Shrub Wetland	PFOB	0.9031
Freshwater Forested/Shrub Wetland	PFOA	34.7874
Freshwater Forested/Shrub Wetland	PFO4A	4.9424
Freshwater Forested/Shrub Wetland	PFO4C	22.5257
Freshwater Forested/Shrub Wetland	PSS1/EM1C	6.2654
Freshwater Forested/Shrub Wetland	PSSA	64.8799
Freshwater Forested/Shrub Wetland	PSSE	5.9953
Freshwater Forested/Shrub Wetland	PSSC	19.5796
Freshwater Forested/Shrub Wetland	PSS/EM1C	9.7065
Freshwater Forested/Shrub Wetland	PFO4/EM1A	2.3917
Freshwater Forested/Shrub Wetland	PFO4/EM1C	149.1303
Freshwater Forested/Shrub Wetland	PFO4/SS1A	3.0972
Freshwater Forested/Shrub Wetland	PFO4/SS1C	14.0328
Freshwater Forested/Shrub Wetland	PSS1C	76.2136
Freshwater Pond	PUBFx	0.0349
Freshwater Pond	PUB3Hs	1.3703
Freshwater Pond	PABFh	0.4647



Trust Resources List

Freshwater Pond	PABG	1.8751
Freshwater Pond	PABF	0.0789
Freshwater Pond	PUBHh	19.7318
Freshwater Pond	PUBHb	0.1314
Freshwater Pond	PUB3Hh	0.6336
Freshwater Pond	PUBHx	0.9009
Freshwater Pond	PABHh	6.3685
Freshwater Pond	PUBH	1.1358
Freshwater Pond	PUBF	0.1139
Freshwater Pond	PABHx	1.8229
Freshwater Pond	PUB3H	2.3812
Freshwater Pond	PUBFh	3.1857
Lake	L1UBH	46.7666
Other	PUS3C	0.0901
Riverine	R3UB1H	9.6027
Riverine	R4SBC	28.6656
Riverine	R4SBA	28.936
Riverine	R3RSA	8.699
Riverine	R3RSC	3.8873
Riverine	R3UBH	10.9743
Riverine	R3US1C	13.9971
Riverine	R4SBAx	2.2122
Riverine	R3USC	4.895
Riverine	R3USA	20.9551
Riverine	R3US1CS	0.6345